



Thursday, 2014 April 10

Re: Correspondence, Planning Commission, April 10, 2014, Item 1

*Via: Electronic Mail*

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**SUBJECT: OPPOSITION TO NIPOMO MESA GROWTH MANAGEMENT ORDINANCE AMENDMENTS, HEARING ITEM 1, APRIL 10, 2014.**

Dear Commissioners and Staff:

This letter is in opposition to the Nipomo Mesa area Growth Management Ordinance amendment LRP2013-00010 as shown in Exhibit LRP2013-00010:A of the staff report pertaining to Hearing Item 1 of today's Planning Commission meeting.

**RECOMMENDATION: A “zoned” building moratorium, restricting development within the Air Pollution Control District’s high impact PM<sub>10</sub> pollution zones (see map on page 5). Additional development moratorium/restrictions to protect ag and other resources.**

- CEQA exemption is wholly unsupportable due to potentially significant impacts including air quality, fugitive dust, agriculture, biological resources, recreation, and other mandatory findings of significance.
- Nipomo Mesa is a “non-attainment” area for PM<sub>10</sub> (particulate matter, 10 microns) air pollution (“dust”), a “criteria pollutant”. In 2012, the Air Pollution Control District reported 115 exceedences of the state’s 24-hour air pollution standard for PM<sub>10</sub>. Nipomo air also failed the annual health standard.
- Nipomo Mesa area geology consists almost entirely of “old dune sand” or “Oceano sand”, and is highly susceptible to soil blowing (PM<sub>10</sub> and fugitive dust).
- Litigation against the County and its Board of Supervisors has arisen, alleging dust on the Nipomo Mesa has exposed residents to “a serious and continuing health risk.” A health risk is acknowledged by the APCD, County Health Officer, and the Board of Supervisors.
- Replacement of trees to block wind/dust is needed (Woodlands removed 640 acres of eucalyptus).

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### PROJECT DESCRIPTION

The proposed amendments (“the project”) seek to amend the Growth Management Ordinance (GMO), Title 26 of the County Code, enacting a maximum 1.8 percent increase in the number of existing dwelling units allowed in the Nipomo Mesa area for the period of July 1, 2014 through June 30, 2015.

The project requires an environmental CEQA determination. Staff contends a general CEQA rule exemption applies<sup>1</sup> and writes, “It can be seen with certainty that there is no possibility that this project may have a significant effect on the environment; therefore, the activity is not subject to CEQA.”<sup>2</sup>

### PROJECT AREA (NIPOMO MESA AREA)

The “Nipomo Mesa area”—indicated by the dark shaded area depicted in Figure 1, below—is a reproduction of Figure 1 in the County Growth Management Ordinance (Title 26 of the San Luis Obispo County Code).

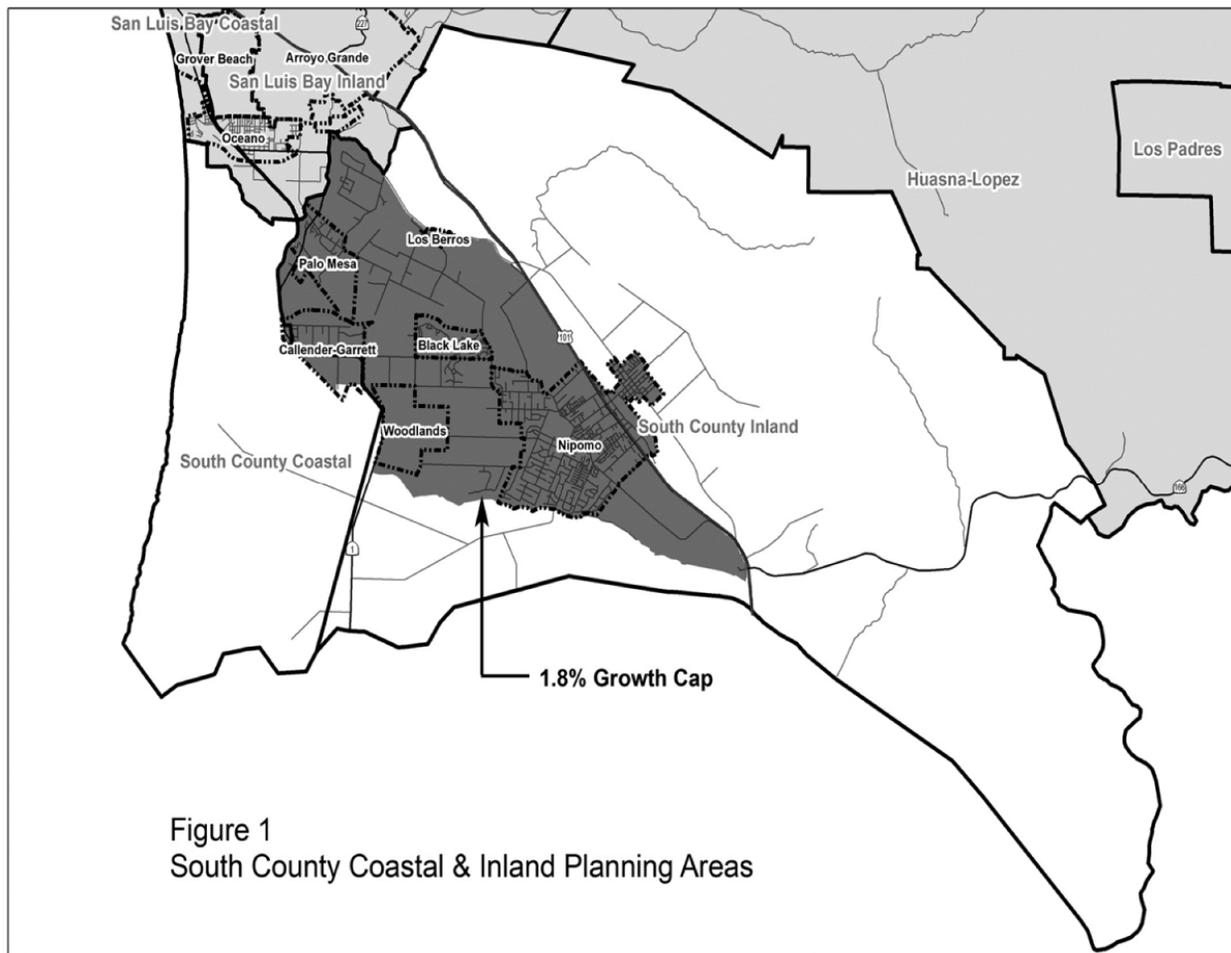


Figure 1 – Nipomo Mesa project area (shaded area).

<sup>1</sup> State CEQA Guidelines, §15061(b)(3), General Rule Exemption.

<sup>2</sup> SLO County Planning Commission Staff Report for Hearing Item 1 on April 10, 2014 (hereinafter, “Staff Report”), at page 3.

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### NIPOMO MESA PARTICULATE MATTER AIR POLLUTION OVERVIEW

A significant cause for concern regarding the project is the failure of staff to consider air pollution issues and associated health and environmental impacts. The APCD has raised very substantial public concern in recent years pertaining to particulate matter (“dust”) air pollution in the Nipomo Mesa region. Both PM<sub>10</sub> and PM<sub>2.5</sub> (particulate matter ≤ 10 & 2.5 microns) are criteria pollutants subject to national ambient air quality standards (NAAQS) as well as California ambient air quality standards (CAAQS).

In February 2010, the APCD released its “South County Phase 2 Particulate Study”, which raised general public awareness and alarm in regards to Nipomo Mesa dust subsequent to heavy media coverage. At that time, the APCD greatly intensified public outreach campaigns, attending approximately 30 events in 2010 and 2011, promoted its air quality forecasting program, school “flag program” and other school education, and began a Clean Air Kids and Clean Air Ambassadors programs.<sup>3</sup> During this same period, numerous Nipomo Mesa area residents became heavily interested in particulate matter dust pollution in their community, began forming activist affiliations, attending government meetings, and further rallying general awareness, concern and alarm within the community.

On November 16, 2011, the APCD Board approved Rule 1001 (the “Dust Rule”), a local regulation intended to reduce PM<sub>10</sub> and PM<sub>2.5</sub> pollution in the Nipomo Mesa region.

The (latest available) APCD 2012 Annual Air Quality Report (Attachment A) indicates San Luis Obispo County is designated as a non-attainment area for the state 24-hour and annual PM<sub>10</sub> standards.<sup>4</sup> Three exceedences of both the federal PM<sub>10</sub> and PM<sub>2.5</sub> standards occurred near the project in 2012.<sup>5</sup> A total of 115 exceedences of the state 24-hour standard for PM<sub>10</sub> occurred in the Nipomo Mesa area in 2012.<sup>6</sup>

The APCD reports: “In contrast to the rest of the county, where PM<sub>10</sub> and PM<sub>2.5</sub> levels have trended downward over the last 20 years, the Nipomo Mesa continues to see high levels of particulate matter pollution; there is no evidence of improvement at CDF or Mesa2 [air monitoring stations], and only slight improvement has been observed at Nipomo Regional Park.”<sup>7</sup>

In its 1991–2011 Air Quality Trends<sup>8</sup> report, the APCD writes in its executive summary (at p. 6), “PM<sub>10</sub> and PM<sub>2.5</sub> levels continue to frequently exceed health standards in the South County with no evidence of improvement.”

On February 27, 2014, activists residing within the existing Cypress Ridge development—directly adjacent to the proposed project—filed suit for public nuisance and trespass against San Luis Obispo County and its Board of Supervisors in San Luis Obispo County Superior Court.<sup>9</sup> The law suit alleges “high PM levels on Nipomo Mesa expose the residents to a serious and continuing health risk,”<sup>10</sup> and “PM pollution creat[es] a public nuisance and trespass,”<sup>11</sup> and that “the County has knowingly and

<sup>3</sup> <http://www.slocleanair.org/apcdfiscal.php> (Accessed April 9, 2014.)

<sup>4</sup> APCD 2012 Annual Air Quality Report, at p. 7. <http://www.slocleanair.org/images/cms/upload/files/2012aqrt-FINAL.pdf>

<sup>5</sup> *Id.*, at p. 12.

<sup>6</sup> *Ibid.*

<sup>7</sup> *Id.*, at p. 37.

<sup>8</sup> <http://www.slocleanair.org/images/cms/upload/files/Final%20AQ%20Trends%28%29.pdf> (Accessed March 13, 2014.)

<sup>9</sup> *Mesa Community Alliance v. Calif. Dept. of Parks and Recreation, County of SLO, and SLO County Board of Supervisors*. (Super. Ct. San Luis Obispo County, February 27, 2014, No. 14CV-0096.)

<sup>10</sup> *Id.*, at p. 5, ¶ 17.

<sup>11</sup> *Id.*, at p. 11, ¶ 42.

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willfully allowed the nuisance and trespass onto private properties to persist with the knowledge of the health effects of the PM pollution and the harm caused to the residents...”<sup>12</sup>

In summary, the political, regulatory, and status quo landscape in regards to air quality on the Nipomo Mesa has radically changed in just the last few years.

The SLO County Health Agency has taken notice and written, “South County residents...are exposed to high concentration of particulate matter,” urging health care “providers in the South County region to be aware of the risks associated with exposure to particulate matter...” (Attachment B.)

In 2013, the APCD released its “South County Community Monitoring Project” report.<sup>13</sup> This \$100,000 report studied dust pollution in the Nipomo Mesa area and produced the air quality forecast map<sup>14</sup> shown here in Figure 2:

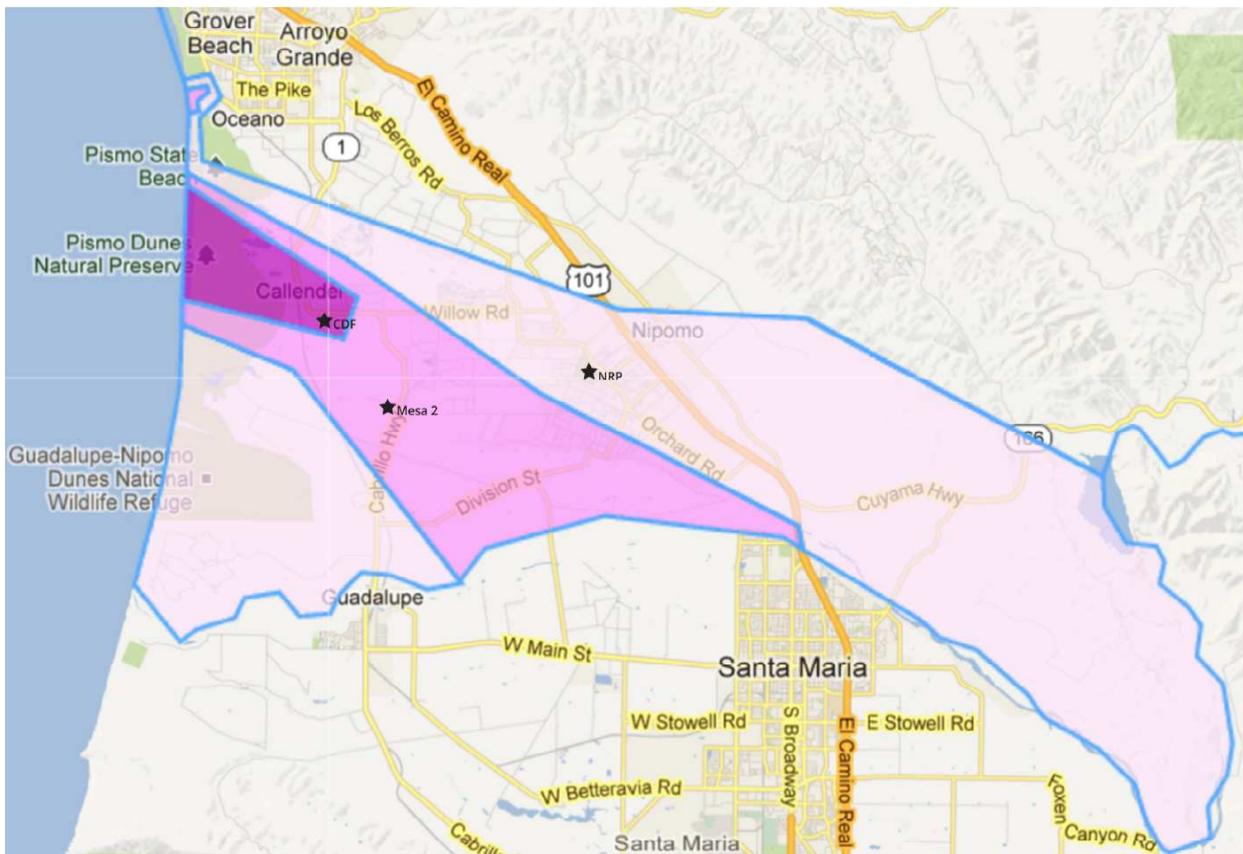


Figure 2 – Nipomo Mesa air pollution zones (from APCD 2012 Air Quality Report, at page 37).

This APCD map depicts PM pollution “zones” shaded according to severity.

Zones are based upon APCD’s three air pollution monitors: CDF, Mesa2, and NRP (shown). These monitoring sites are located, respectively, at the Cal-Fire station on Willow Road, on the mesa next to Highway 1 near the Woodlands development, and at Nipomo Regional Park.

<sup>12</sup> *Id.*, at p. 12, ¶ 45.

<sup>13</sup> <http://slocleanair.org/images/cms/upload/files/Final%20Report.pdf> (Accessed April 10, 2014.)

<sup>14</sup> *Id.*, at p. 24. Also appears in 2012 Annual Air Quality Report (Attachment A), at p. 37.

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**PROJECT AREA OVERLIES APCD'S HIGH PM<sub>10</sub> IMPACT ZONES**

Figure 3 depicts the Nipomo Mesa area (project area) map (Figure 1) overlaid upon the Air Pollution Control District's high PM<sub>10</sub> impact zone map (Figure 2):

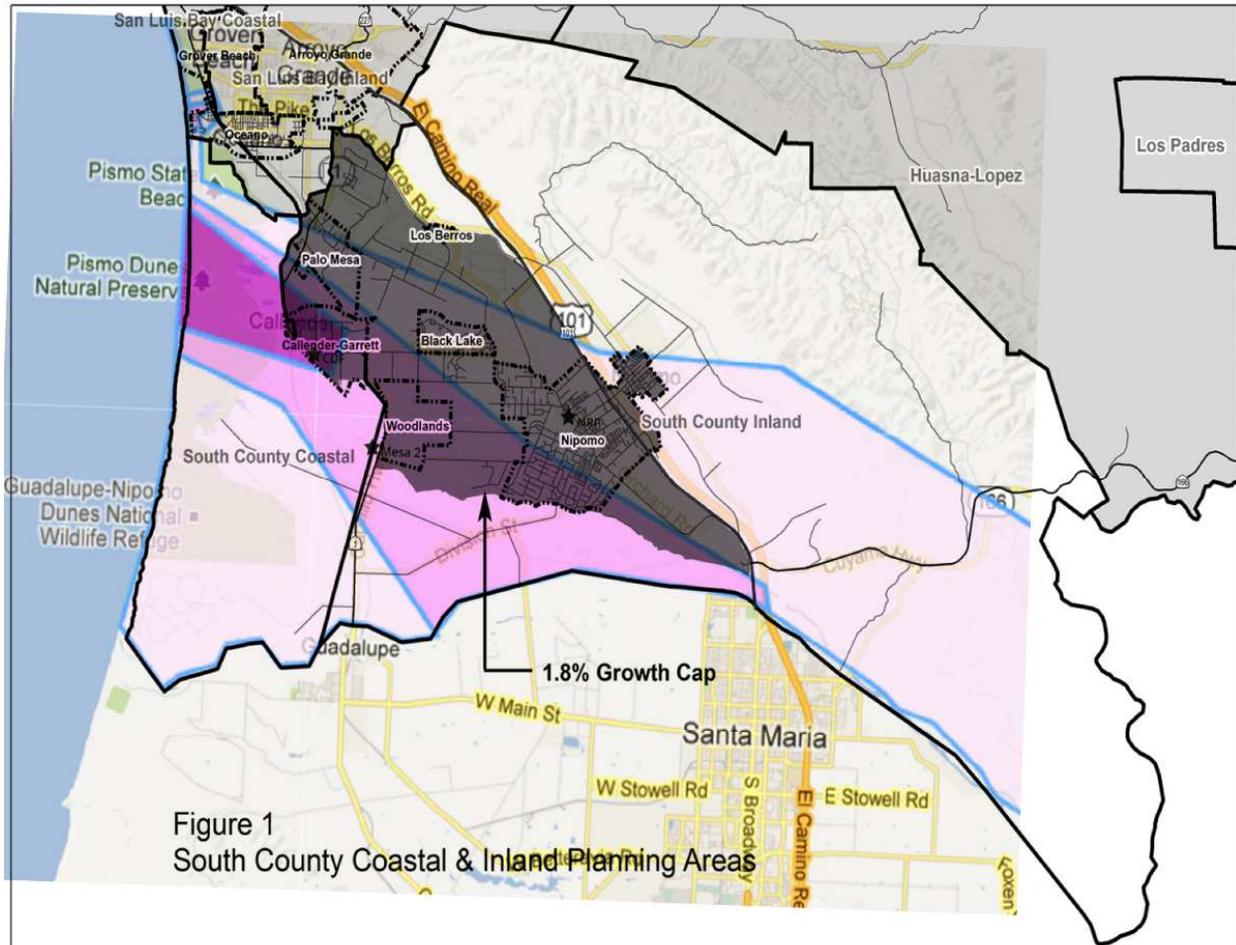


Figure 3 – Nipomo Mesa area (shaded) overlaid on APCD air pollution zones.

It is immediately apparent that the project area is largely inside the zones considered by the Air Pollution Control District as significantly impacted by PM<sub>10</sub> air pollution. These very same areas suffered 115 violations of the state PM<sub>10</sub> air pollution standard in 2012. (*supra*, at p. 3.)

**DEVELOPMENT MORATORIUM WITHIN APCD IMPACT ZONES**

It is strongly recommended that a development moratorium should exist in concordance with the air pollution zones created by APCD.

**POTENTIALLY SIGNIFICANT IMPACTS:**

- Development causes additional PM emissions that will result in further violations of federal and state air pollution standards.
- Development will expose additional sensitive receptors (persons) to substantial air pollutant concentrations. The Nipomo Mesa especially caters to and attracts elderly residents with its golf communities.

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### FAILURE OF WOODLANDS MITIGATION MONITORING PROGRAM

Little assurance or confidence exists that mitigations and conditions imposed on future development projects addressing air quality will be effectively carried out. These doubts stem from what appears to be a complete failure of mitigation monitoring at the ongoing Woodlands development.

Appendix J of the certified Woodlands Specific Plan Final Environmental Report (1998) establishes a “Mitigation Monitoring Program” in order to “verify and document that project implementation is conducted in compliance with specifications relating to mitigation plans, environmental protection and environmental requirements set forth in project permits and approvals, including the EIR.”

Monitoring requirements include designation of an Environmental Compliance Monitor for the Woodlands project responsible for preparing noncompliance reports, environmental monitoring reports, and reporting to the County and other agencies as described in the mitigation plans. San Luis Obispo County Air Pollution Control District is one of the “other agencies”.

The APCD is identified as the “Party Responsible” for monitoring oversight for a number of mitigation measures in the Woodlands Specific Plan, including:

Mitigation Measure/Specific Plan Number	Summary of Mitigation Measures	Monitoring Reporting Schedule
4.3-1c	Use reasonable, typical watering techniques to reduce fugitive dust emissions	Random checking throughout grading & construction stages until vegetation successfully established. Report to be prepared quarterly during construction.
	Wet all unpaved demolition/construction areas at least twice a day.	Report to be prepared quarterly. Random checking throughout grading & construction stages until vegetation successfully established.
	Use temporary dust covers over stockpiled areas.	Report to be prepared quarterly.
	Additional watering should be undertaken	Random checking throughout grading & construction stages until vegetation successfully established. Report to be prepared quarterly during construction.
4.3-1d	Spread soil binders shall be spread where regular construction vehicle usage (unpaved road & parking areas).	During construction activities. Report to be prepared quarterly.
4.3-1e	Re-establish ground cover through seeding and watering.	After completion of grading and periodically thereafter until plant seed head emerges or 80% coverage of perennials. Report to be prepared quarterly.
4.3-1f	Wash trucks, prior to leaving site.	Ongoing during construction. Report to be prepared quarterly.
4.3-1g	Submit APCD-approved Construction Activities Management Plan.	Prior to initiation of tree clearing activities, or approval for subdivision improvement plans or issuance of grading permits.

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Recent site visits reveal intense, dust-producing, heavy equipment and construction operations are ongoing at Woodlands (Figures 4 and 5):



Figure 4 – Unmitigated dust emanating from ongoing heavy equipment operation at Woodlands (Sep. 2013).



Figure 5 – Unmitigated fugitive dust entrained by wind from denuded empty lots at Woodlands project (Sep. 2013).

Particularly regrettable is the loss of thick eucalyptus “dust filters” around Woodlands. Stands of eucalyptus have been thinned significantly beyond minimum requirements mandated by the Woodlands Specific Plan. A total of 640 acres of eucalyptus stands were decimated for the Woodlands development.

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### AGRICULTURE

Agricultural fields on Nipomo Mesa produce extreme amounts of particulates during wind events.<sup>15</sup> Irrigation sprinklers used to control dust are ineffective (Figure 6) unless continuously operated. Rotational watering—sprinklers operated one zone at a time in a rotating pattern—allow time for soils to dry. In strong winds, soils dry and become friable again in mere minutes.



Figure 6 – Thick dust emits from agricultural field directly across street from residences on the Nipomo Mesa (Sep. 2013).



Figure 7 – Dust drifts from adjacent dirt road into Woodlands residences. (Sep. 2013).

<sup>15</sup> See APCD South County Community Monitoring Project report (2013), Appendix C, at p. C-34.  
<http://slocleanair.org/communitymonitoringproject.php>

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### **DIRT ROADS**

Dirt roads cause 31 percent of PM<sub>10</sub> pollution in the county (Figure 7). The APCD wrote in 2007, “Dirt roads with fine sandy soil were seen to add an additional particulate load to the air in their vicinity, contributing to some of the highest particulate measurements.”<sup>16</sup>

The APCD actually recommended in 2007: “To reduce the elevated PM concentrations observed in localized areas near dirt roads, it is recommended that the District move forward with the proposed PM control strategies adopted by the Board as part of the 2005 Particulate Matter Report to meet the requirements of SB 656. This includes a control strategy to reduce emissions from high volume unpaved roads by working with County Public Works, County Planning and Building Department, South County Advisory Council and developers to evaluate and implement measures such as speed limit reductions, application of dust suppressants or paving new and existing unpaved roads in areas of higher population where exposure is greatest.”<sup>17</sup>

Seven years later, neither the county nor the APCD are regulating dirt roads at all, or even considering doing so.

### **PHILLIPS 66 RAIL SPUR PROJECT**

The very same Cypress Ridge residents that initiated the *Mesa Community Alliance* litigation (*supra*, at p. 3) are also opposing the Phillips 66 refinery rail spur project. A significant component of their opposition is concern about particulate matter emission from that project.

### **A HOLISTIC PARTICULATE MATTER SOLUTION IS NEEDED**

The incremental, cumulative addition of PM<sub>10</sub> and PM<sub>2.5</sub> emitting projects, along with neglect or failure to control existing known emitters is unacceptable. The Nipomo Mesa is already experiencing numerous exceedences of state and federal ambient air quality standards for these criteria pollutants.

In 2012, a total of 115 exceedences of the state 24-hour PM<sub>10</sub> standard were observed between three air monitoring stations on 72 different days.<sup>18</sup> A single new PM<sub>10</sub> source ***will result in additional exceedences of state and/or federal ambient air quality standards, and will result in a cumulative net increase in this criteria pollutant.***

Because the Nipomo Mesa is on the threshold of exceeding PM air standards many days per year (the days not already in exceedences), even modest particulate matter emissions from development will increase the observed number of pollution exceedences. Development must mitigate ***all*** PM emissions, if not attain a negative emission via off-site reductions. Failing to do so exacerbates existing litigation (i.e., *Mesa Community Alliance, supra*) and subjects residents to pollutant concentrations deemed unhealthy by the APCD and County Health Officer for nearby sensitive receptors.

Any new Nipomo Mesa area development will draw new residents who are sensitive receptors into a region the APCD and Health Department frequently advise is unhealthy for sensitive groups.

A holistic particulate matter solution for the Nipomo Mesa is necessary. This challenge should be submitted to the APCD Board for development. Conditions for paving dirt roads, installing vegetation barriers, etc., should be developed such that new projects would actually improve air quality on the Nipomo Mesa instead of imposing an incremental detriment.

<sup>16</sup> APCD, Nipomo Mesa Particulate Study (2007) [“Phase 1”], at p. 53.

[http://slocleanair.org/images/cms/upload/files/air/pdf/pm\\_report2006\\_rev1.pdf](http://slocleanair.org/images/cms/upload/files/air/pdf/pm_report2006_rev1.pdf)

<sup>17</sup> *Id.*, at p. 49, “Recommendations”.

<sup>18</sup> Attachment A: APCD 2012 Annual Air Quality Report, at p. 12.

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### PROJECT INCOMPATIBILITY WITH CEQA EXEMPTION

The proposed finding for CEQA exemption overlooks, minimizes, and dismisses numerous Potentially Significant Impacts (PSIs) without adequate—*in fact, not any*—justification! An enumeration PSIs follows utilizing the same numbering system often used in CEQA “Initial Study” documents:

#### 2. AGRICULTURAL RESOURCES

**(b) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance to non-agricultural use.**

The project does, in fact, convert Farmland of Statewide Importance to non-agricultural use. County goals and policies note that conservation of agricultural resources, notably soil and water are vital components necessary for a successful agricultural industry in the county.

The County Agriculture Department considers the conversion of Nipomo Mesa area soil resources to be a potentially significant impact.<sup>19</sup> (Attachment C, at p. 4.)

**(c) Impair agricultural use of other property or result in conversion to other uses.**

Proximity to farmland causes dust, pesticide, farm traffic and noise exposure to future residents and creates a nearby conflicting use which significantly impacts both agriculture and the project residents.

#### 3. AIR QUALITY

**(a) Violate any state or federal ambient air quality standard, or exceed air quality emission thresholds as established by County Air Pollution Control District.**

Federal and State ambient air quality standards (NAAQS and CAAQS) are already being violated in the project area numerous times per year for PM<sub>10</sub> and PM<sub>2.5</sub>. Many non-violation days are already at threshold levels. The slightest emission will cause additional violations.

**(b) Expose any sensitive receptor to substantial air pollutant concentrations.**

The project will especially attract older residents who are sensitive receptors. Numerous NAAQS and CAAQS violations are ongoing in the region.

**(c) Create or subject individuals to objectionable odors.**

A large refinery is upwind and regularly generates odor complaints. The APCD should evaluate and quantify the number of odor complaints it has historically received in the general project area.

**(d) Be inconsistent with the District’s Clean Air Plan.**

The APCD has indicated recent development inconsistencies with its Clean Air Plan.

**(e) Result in a cumulatively considerable net increase of any criteria pollutant either considered in non-attainment under applicable state or federal ambient air standards**

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<sup>19</sup> County Agriculture Department letter, August 10, 2009.

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**that are due to increased energy use or traffic generation, or intensified land use change.**

Federal and State ambient air quality standards (NAAQS and CAAQS) are already being violated in the project area numerous times per year for PM<sub>10</sub> and PM<sub>2.5</sub>. The project area is in non-attainment for particulate matter. Many non-violation days are already at threshold levels. The slightest emission will cumulatively cause increases for these criteria pollutants resulting in additional violations.

**(h) Fugitive Dust.**

Project site soils are *Oceano sand* and susceptible to entrainment by winds. (Attachment C, at p. 2; also, Attachment D, at p. 8) The area has significant seasonal wind events. Soils do not retain water due to high permeability (*Ibid.*) and, therefore, watering is not effective for mitigation of fugitive dust during wind events.

The project will disturb soil and generate fugitive dust affecting local residents and business. Dust complaints could result in violation of the APCD's nuisance rules, a potentially significant air quality impact. There presently exists litigation against the county by Nipomo Mesa area residents alleging a dust nuisance.

The APCD should review and produce data on the number of dust nuisance complaints filed by area residents.

The project will add even more sensitive receptors to a non-attainment area that both the APCD and Health Department frequently warn is unhealthy for sensitive receptors.

**4. BIOLOGICAL RESOURCES**

**(b) Reduce the extent, diversity or quality of native or other important vegetation.**

Stands of eucalyptus are recently recognized as important particulate matter dust filters. Eucalyptus also provide overwintering cover for dwindling Monarch butterfly (*Danaeus plexippus*) populations. Thinning, removal or degradation of eucalyptus or tree stands or other Monarch habitat should be considered a unmitigated significant impact.

**(d) Interfere with the movement of resident or migratory fish or wildlife species, or factors, which could hinder the normal activities of wildlife.**

Eucalyptus are necessary for the migration and movement of the Monarch butterfly (*Danaeus plexippus*). Any removal of eucalyptus or other habitat could hinder Monarch populations.

**(e) Conflict with any regional plans or policies to protect sensitive species, or regulations of the California Department of Fish & Wildlife or U.S. Fish & Wildlife Service.**

The Monarch butterfly (*Danaeus plexippus*) is considered a "threatened phenomenon" by the state and "rare" under CEQA Guidelines Section 15380 because of declining availability of winter habitat. Thinning, removal or degradation of eucalyptus or other Monarch habitat should be considered an unmitigated significant impact.

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## 11. RECREATION

**(b) Affect the access to trails, parks or other recreation opportunities.**

The project adds sensitive receptors in an area impacted and in non-attainment for PM<sub>10</sub> and PM<sub>2.5</sub>, which the APCD (and the *Mesa Community Alliance*) lawsuit allege originates from OHV use at Oceano Dunes SVRA (ODSVRA). Since the passage of APCD Rule 1001, ODSVRA is under legal attack which could affect access to this state park (the ninth most popular state park in California). This conflict should be considered a significant impact until the legal issues have been resolved.

## 16. MANDATORY FINDINGS OF SIGNIFICANCE

**(a) Have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory.**

The Monarch butterfly (*Danaeus plexippus*) is considered a “threatened phenomenon” by the state and “rare” under CEQA Guidelines Section 15380 because of declining availability of winter habitat. Thinning, removal or degradation of eucalyptus or other habitat should be considered an unmitigated significant impact.

**(b) Have impacts that are individually limited, but cumulatively considerable. (“Cumulatively considerable” means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects.)**

The project has “cumulatively considerable” impacts in relation to: (1) Particulate matter emissions in a non-attainment area; (2) Will increase the number of sensitive receptors in a non-attainment area; (3) May cumulatively degrade Monarch butterfly (*Danaeus plexippus*) habitat.

**(c) Have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly.**

Again, the project will produce fugitive particulate matter dust in a region already in non-attainment for these criteria pollutants (PM<sub>10</sub> and PM<sub>2.5</sub>). The project will add additional sensitive receptors to an area already in non-attainment and for which the APCD and Health Department frequently issue health warnings for sensitive receptors.

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**PROJECT SITE SOILS ARE “OCEANO SAND”, SUSCEPTIBLE TO BLOWING**

The County Department of Agriculture has determined, “The site’s soils and soils throughout the Mesa consist of *Oceano sand*... These soil types extend through most of the Mesa east to Highway 101. ... The main limitations of this soil are its rapid permeability, low water holding capacity, and susceptibility to soil blowing.” (Attachment C, at p. 2.)

Similar findings were made in a Nipomo Mesa Management Area water adjudication report in 2008 (Attachment D), which states (at p. 8), “[E]olian (wind-blown) dune sands overlies the elevated area, known as the Nipomo Mesa.” That report identifies Nipomo Mesa soils as “Older Dune Sand.” (Attachment D, at p. 9 and Figure 2-2 map on p. 12.)

The U.S. Geological Survey produced a geologic map in 1944 that included a portion of the Nipomo Mesa (Attachment E). An excerpt of that map is below in Figure 8:

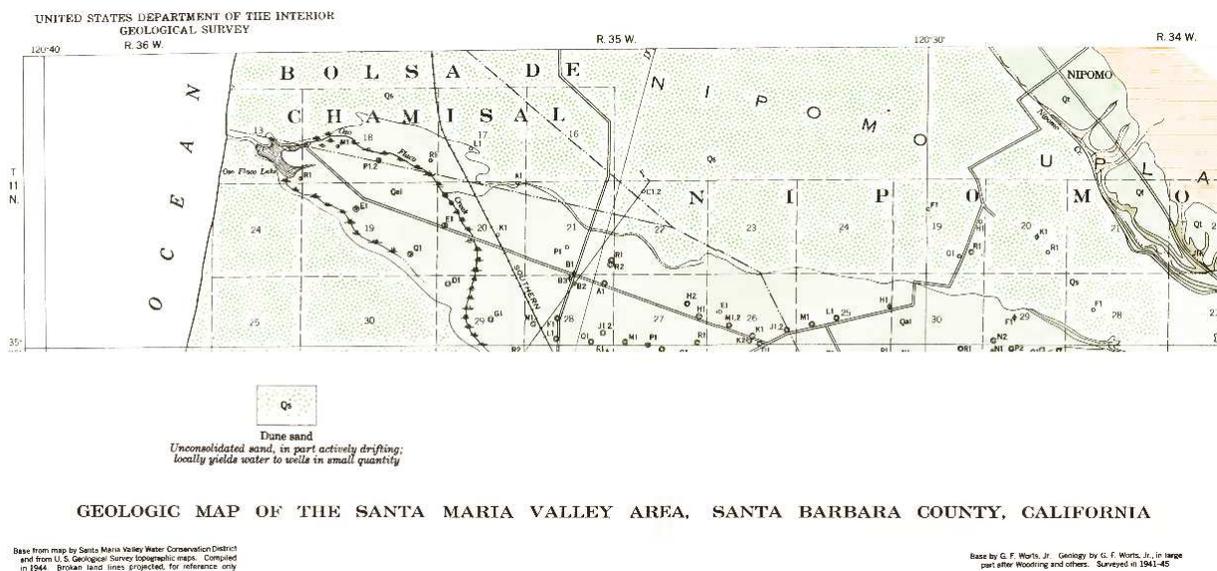


Figure 8 – 1944 U.S.G.S. Geologic Map indicating entire Nipomo Mesa area as “Dune sand—in part actively drifting”.

Nipomo Mesa area development will emit considerable particulate matter. Because soils are dune sand and susceptible to blowing, and also poor in water retention, fugitive dust mitigations utilizing water will have little to no effect. It is not possible for water trucks or sprinklers to keep soil adequately moist during wind events (see Figure 6, *supra*). These soils dry and become wind-entrained in mere minutes.

**APCD SHOULD PRODUCE NIPOMO MESA DUST/HEALTH COMPLAINTS ON FILE**

The APCD accepts and responds to air quality complaints from residents. Such complaints may include illegal burning, odors, and any other matter related to air quality. The numbers, types, and locations of any pertinent complaints should be produced and evaluated in reviewing whether emissions from development constitute a potentially significant impact.

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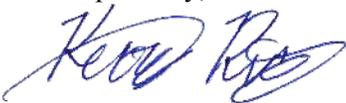
### FURTHER RECOMMENDATIONS

- Recommend involvement of the APCD's legislative body (the APCD Board). The political, regulatory, and status quo landscape in regards to air quality on the Nipomo Mesa has radically changed in recent years. The APCD Board should be involved because the subject of particulate matter in the Nipomo Mesa area includes ongoing litigation against the APCD and because of complex ongoing negotiations between the APCD and numerous other state and local agencies.
- Contemplate further review of all the points and impacts discussed herein, or brought to light in the future by staff, deliberation, or public comment.
- Consider (and recommend for consideration by the APCD Board and Board of Supervisors) development of a holistic particulate matter solution pertaining to air quality conditions in the Nipomo Mesa area, to include remediation of cumulative particulate emitters and prohibiting an increase in the population of sensitive receptors.
- The County and APCD should consider development of new region-wide standards and mitigation practices for the Nipomo Mesa that will achieve negative particulate matter emissivity for new projects.
- The county and APCD should consider undertaking the 2007 APCD recommendation to address dirt road emissions, and should restore environmental monitoring and compliance at Woodlands and any other applicable projects.

### CONCLUSION

For all of the reasons herein, and for any good cause shown which emerges, the Nipomo Mesa area Growth Management Ordinance amendment LRP2013-00010 as shown in Exhibit LRP2013-00010:A of the staff report should be denied. The finding of CEQA exemption should also be denied. In light of present issues in the Nipomo Mesa area, increased development cannot mitigate all "potentially significant impacts" and should be restricted.

Respectfully,

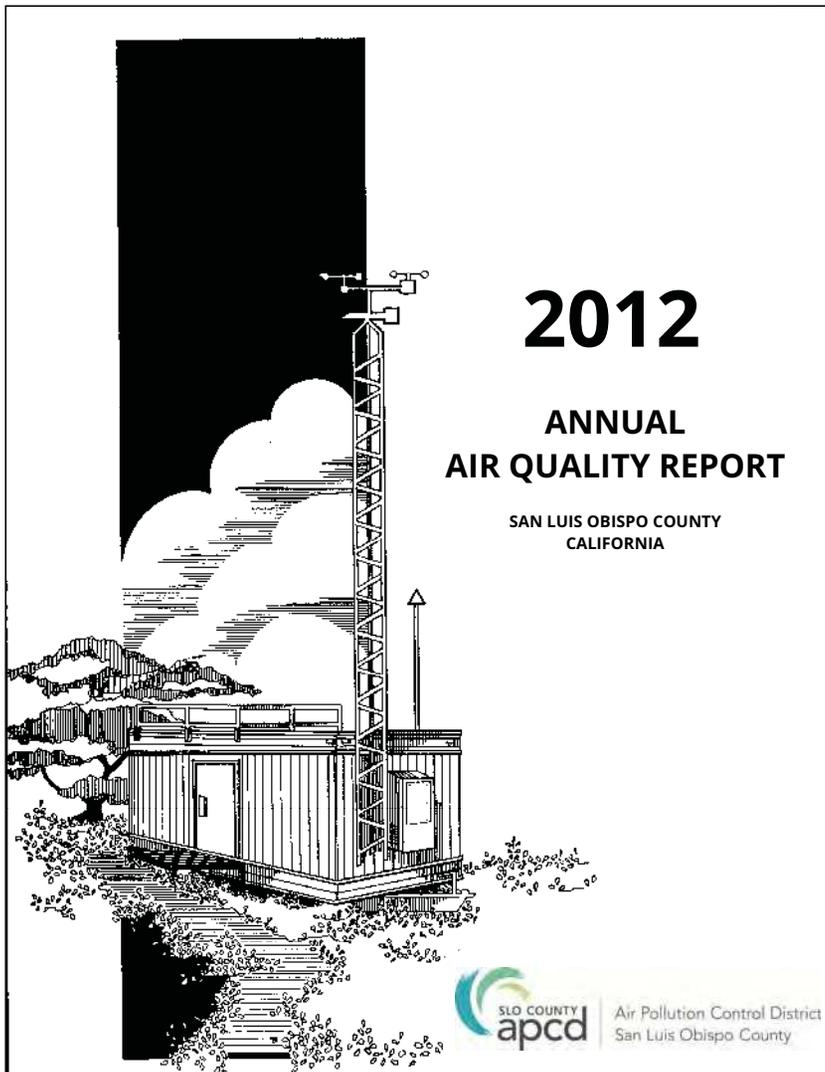


Kevin P. Rice  
(805) 602-2616  
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Attachment A: APCD 2012 Annual Air Quality Report (excerpts, 5 pp.)  
Attachment B: County Public Health Bulletin, Winter 2011 (excerpts, 1 pg.)  
Attachment C: County Dept. of Agriculture letter (August 10, 2009) (excerpt, 2 pp.)  
Attachment D: Nipomo Mesa Management Area 2008 Annual Report (excerpts, 4 pp.)  
Attachment E: 1944 U.S.G.S. Geologic Map (1 pg.)

## Attachment A

APCD 2012 Annual Air Quality Report  
(excerpts, 5 pp.)



## 2012 Air Quality Summary

While urban and suburban areas of San Luis Obispo County enjoyed smog-free air in 2012, ozone levels exceeding both federal and state standards were measured on numerous days in the rural eastern portion of the county. This area (Figure 1) was designated as a nonattainment zone for the federal ozone standard in May 2012. As discussed in Appendix A, the available evidence suggests these exceedences—like those observed in earlier years—were caused by the transport of ozone and ozone precursors from outside of the county, rather than by emissions originating within the county.

Smoke from wildfires can often adversely affect air quality. The Turkey Fire burned 2700 acres near Parkfield in Monterey County from July 9-11, 2012; as shown in Table 3, the three highest 8-hour ozone concentrations at Red Hills were observed on July 10, 11, and 12, and the two highest 8-hour ozone levels at Carrizo Plains were observed on July 11 and 12. In addition, the single highest 8-hour levels for Paso Robles and Atascadero were both observed on July 12. Several of the highest 1-hour ozone concentrations observed at Red Hills, Carrizo Plains, Atascadero, and Paso Robles also occurred during this period.

The Billy Fire, near Santa Nella in Merced County burned 434 acres on May 31. The third highest 8-hour and 1-hour ozone concentrations were observed at Carrizo Plains the following day, and back trajectories from this site for June 1 extend over the fire area. (See Appendix A and Figure A14.)

A third notable fire this year was the Coon Creek Fire in Montaña de Oro State Park, which burned from November 13-15, a short distance from several monitoring stations in the county. The Morro Bay and Nipomo Regional Park stations both recorded their highest hourly nitrogen dioxide (NO<sub>2</sub>) levels during this period. Ozone and particulate levels were not elevated at any nearby stations, except possibly at San Luis Obispo, which recorded its highest 24-hour PM<sub>2.5</sub> value for the month on the 13<sup>th</sup>.

South County air quality continues to be impacted by dust blown from the Oceano Dunes area along the coast. **Three exceedences of the federal PM<sub>10</sub> standard occurred in 2012 (all at CDF), and numerous exceedences of the state standard were recorded at the Mesa2, CDF, and Nipomo Regional Park monitoring sites, all located on the Nipomo Mesa. In addition, the federal 24-hour PM<sub>2.5</sub> standard was exceeded three times on the Nipomo Mesa.** These exceedences of the federal PM<sub>10</sub> and PM<sub>2.5</sub> standards all occurred in May and June when strong winds blew from the northwest and swept across the Oceano Dunes State Vehicular Recreation Area. Such wind conditions and the high levels of particulates that result are typical in this area. See Appendix B for details. The South County Community Monitoring Project report,<sup>1</sup> released in January 2013, evaluated data collected from 23 temporary PM<sub>10</sub> monitors deployed on the Nipomo Mesa and in Oceano during the spring of 2012; this study found that during high wind events the dust plume from the dunes extends south to at least the Santa Maria River and east beyond Highway 101. APCD Rule 1001 was adopted by the Board in November 2011 and is being implemented to address the dust emissions from the dunes and improve air quality in this area.

As shown in Table 4, the highest daily PM<sub>10</sub> concentrations recorded at San Luis Obispo, Atascadero, and Paso Robles all exceeded the state 24-hour PM<sub>10</sub> standard of 50 µg/m<sup>3</sup>. The only exceedence recorded at San Luis Obispo occurred on May 23, the same day that CDF recorded its highest level for the year and very strong winds blew out of the northwest. Both of the Atascadero exceedences and one of the two Paso Robles exceedences occurred on cold January days with stagnant (i.e. low wind) conditions and sub-freezing nighttime temperatures, which suggest residential wood burning as the likely cause.

<sup>1</sup> San Luis Obispo County Air Pollution Control District, January 2013. South County Community Monitoring Project. San Luis Obispo, Calif. <http://www.slocleanair.org/images/cms/upload/files/Final%20Report.pdf>

### State and National Ambient Air Quality Standards

California and the federal EPA have adopted ambient air quality standards for six common air pollutants of primary public health concern: ozone, particulate matter (PM<sub>10</sub> and PM<sub>2.5</sub>), nitrogen dioxide (NO<sub>2</sub>), sulfur dioxide (SO<sub>2</sub>), carbon monoxide (CO), and lead. These are called "criteria pollutants" because the standards establish permissible airborne pollutant levels based on criteria developed after careful review of all medical and scientific studies of the effects of each pollutant on public health and welfare.

The National Ambient Air Quality Standards (NAAQS; see Table 2) are used by EPA to designate a region as either "attainment" or "non-attainment" for each criteria pollutant. A non-attainment designation can trigger additional regulations for that region aimed at curbing pollution levels and bringing the region into attainment. For most pollutants, the NAAQS allow a standard to be exceeded a certain number of times each calendar year without resulting in a non-attainment designation. Additionally, exceedences caused by exceptional events (see below) may be excluded from attainment/non-attainment determinations at the discretion of the EPA.

In May 2012 the EPA designated the eastern portion of our county as marginally non-attainment for the 8-hour ozone standard based on enhanced monitoring over the last decade that revealed previously unrecognized elevated ozone levels in that region; the western portion of the county retained its attainment status. (See Figure 1 for a map showing the boundary between the attainment and non-attainment areas.) The county is currently designated attainment for all of the other NAAQS; **we do, however, exceed the federal 24-hour standard for PM<sub>10</sub> on the Nipomo Mesa and could be designated nonattainment for that pollutant if exceedences continue.**

The California Ambient Air Quality Standards are generally more restrictive (i.e. lower) than the NAAQS. As a result, **San Luis Obispo County is designated as a non-attainment area for** the state one-hour and 8-hour ozone standards, as well as **the state 24-hour and annual PM<sub>10</sub> standards.**

The state and national standards for NO<sub>2</sub> have never been exceeded in this county. The state standard for SO<sub>2</sub> was exceeded periodically on the Nipomo Mesa up until 1993. Equipment and processes at the facilities responsible for the emissions were upgraded as a result, and the state SO<sub>2</sub> standard has not been exceeded since that time. Exceedences of the federal SO<sub>2</sub> standard have never been measured here. State CO standards have not been exceeded in San Luis Obispo County since 1975.

### Exceptional Event Documentation

Exceptional Events are unusual or naturally occurring events that can affect air quality but are not reasonably controllable or preventable and are unlikely to recur at a particular location. Thus, air quality monitoring data influenced by exceptional events can sometimes be excluded from regulatory determinations related to violations of the NAAQS, if recommended by the SLOAPCD and approved by the EPA. As mentioned in the summary above, two of the fires that occurred in 2012 could potentially qualify as exceptional events if we could demonstrate they were responsible for the ozone exceedences we experienced following those fires. However, the analysis and documentation required for such submittals is quite extensive, and EPA concurrence would not change our nonattainment status due to the numerous other exceedences measured at those locations that were not influenced by the fires. Thus, the SLOAPCD has not submitted any exceptional event documentation for 2012 to the EPA and does not expect any data compiled in this report to be excluded from future attainment determinations.

### Particulate Matter Data Summary

Countywide, **three days exceeded the federal 24-hour PM<sub>10</sub> standard of 150 µg/m<sup>3</sup> in 2012; all were recorded at the CDF station. Exceedences of the state 24-hour PM<sub>10</sub> standard of 50 µg/m<sup>3</sup> were observed on 72 different days: 70 at CDF, 36 at Mesa2, 9 at NRP, 2 each at Atascadero and Paso Robles, and once at San Luis Obispo.<sup>3</sup> All sites on the Nipomo Mesa (NRP, CDF, and Mesa2) exceeded the state annual average PM<sub>10</sub> standard of 20 µg/m<sup>3</sup>, while the rest of the county remained below this level.<sup>4</sup>**

This year, **the federal 24-hour PM<sub>2.5</sub> standard of 35 µg/m<sup>3</sup> was exceeded three times at CDF and once at Mesa2.** The federal and state standards for annual average PM<sub>2.5</sub> concentration were not exceeded anywhere in the county.

The following table lists the highest 24-hour concentrations recorded in 2012 (and the dates on which they occurred) as well as the annual means for PM<sub>10</sub> and PM<sub>2.5</sub> for all stations where these pollutants were monitored. Values exceeding state or federal standards are shown in bold.

**Table 4: Summary of PM<sub>10</sub> and PM<sub>2.5</sub> Statistics for 2012**

Station	PM <sub>10</sub>		PM <sub>2.5</sub>	
	Highest 24-hour Concentration	Annual Arithmetic Mean	Highest 24-hour Concentration	Annual Arithmetic Mean
Paso Robles	<b>61 µg/m<sup>3</sup></b> 01/13	17.5 µg/m <sup>3</sup>		
Atascadero	<b>62 µg/m<sup>3</sup></b> 01/12	16.4 µg/m <sup>3</sup>	33.7 µg/m <sup>3</sup> 01/12	6.0 µg/m <sup>3</sup>
San Luis Obispo	<b>51 µg/m<sup>3</sup></b> 05/23	14.8 µg/m <sup>3</sup>	15.4 µg/m <sup>3</sup> 05/18	6.1 µg/m <sup>3</sup>
<b>CDF, Arroyo Grande</b>	<b>180 µg/m<sup>3</sup></b> 05/23	<b>33.6 µg/m<sup>3</sup></b>	<b>41.6 µg/m<sup>3</sup></b> 05/23	<b>9.6 µg/m<sup>3</sup></b>
<b>Nipomo Regional Park</b>	<b>75 µg/m<sup>3</sup></b> 06/08	<b>21.1 µg/m<sup>3</sup></b>		
<b>Mesa2, Nipomo</b>	<b>146 µg/m<sup>3</sup></b> 06/08	<b>25.1 µg/m<sup>3</sup></b>	<b>36.9 µg/m<sup>3</sup></b> 06/08	<b>8.1 µg/m<sup>3</sup></b>

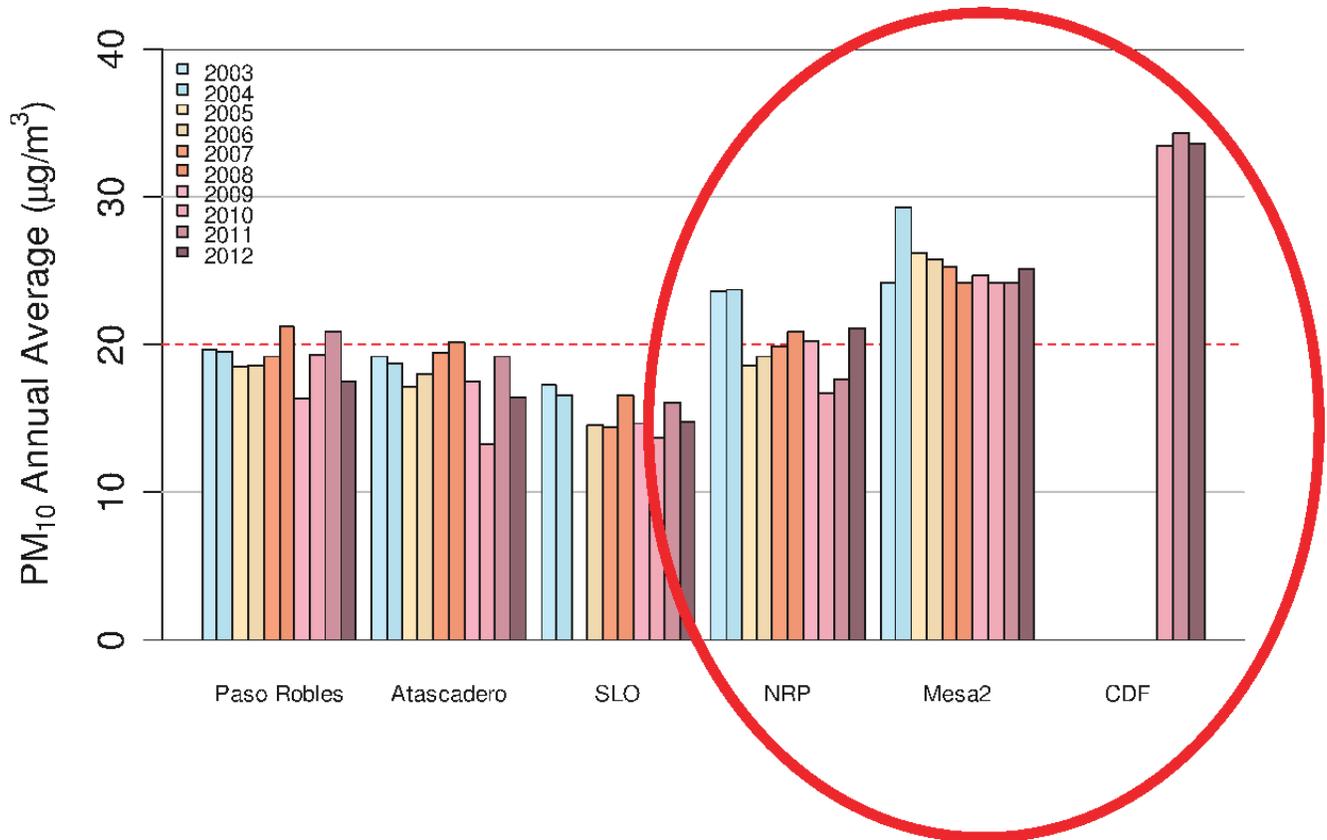
<sup>3</sup> Similar to the situation with ozone, ARB and EPA apply different conventions to the handling of significant digits. The ARB website (<http://www.arb.ca.gov/adam/topfour/topfour1.php>) thus counts 69 exceedences of the state PM<sub>10</sub> standard at CDF, 41 at Mesa2, ten at Nipomo Regional Park, two each at Paso Robles and Atascadero, and four at San Luis Obispo. Some of the differences in exceedence counts between ARB and EPA may also be due to the presence of non-validated data in the ARB database.

<sup>4</sup> With the exception of data from San Luis Obispo and Paso Robles, the PM<sub>10</sub> measurements discussed in the text and shown in tables and graphs in this report are corrected to standard temperature and pressure (STP). This is to facilitate comparison to the PM<sub>10</sub> NAAQS, which is defined in STP units. For the San Luis Obispo and Paso Robles stations, which are managed by ARB, only uncorrected PM<sub>10</sub> data is available, and thus throughout this report uncorrected (so-called "local conditions") data is used for these stations. Differences between data corrected to STP and uncorrected local conditions data is generally very small, typically less than a few percent.

**Countywide PM<sub>10</sub> Trends, 2003 - 2012**

The graph below depicts the annual arithmetic average PM<sub>10</sub> concentrations at six locations in San Luis Obispo County over the past ten years; the SLO station moved in 2005 so data is not shown for that year. While occasional exceedences of the state PM<sub>10</sub> standard occur at all sites, the **monitors on the Nipomo Mesa at Nipomo Regional Park, Mesa2, and CDF are consistently higher than elsewhere in the county. The red dashed line marks the state PM<sub>10</sub> standard for the annual arithmetic mean, 20 µg/m<sup>3</sup>.**

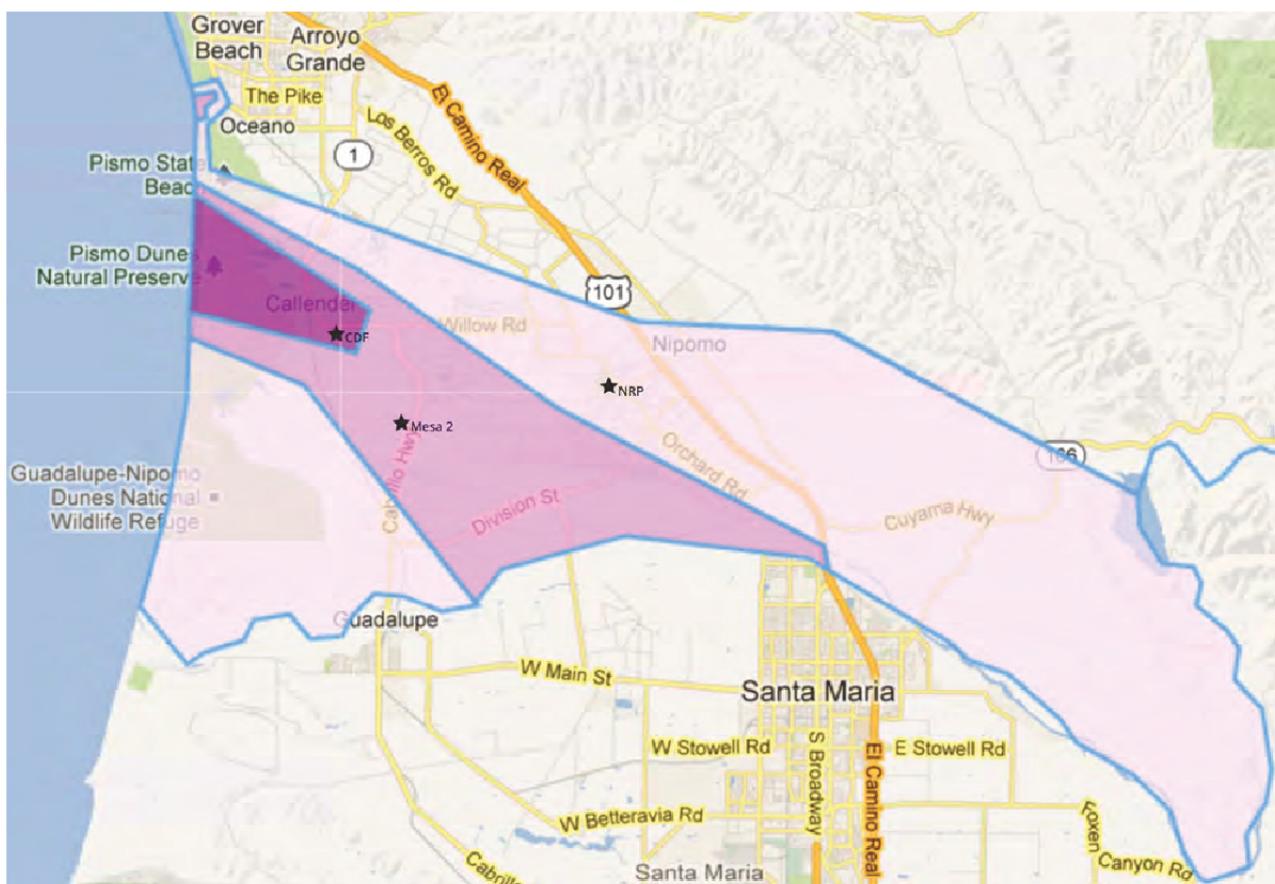
**Trends in PM<sub>10</sub> Annual Average**



## Appendix B: Coastal Dune Influence on South County PM<sub>10</sub>

In contrast to the rest of the county, where PM<sub>10</sub> and PM<sub>2.5</sub> levels have trended downward over the last 20 years, the Nipomo Mesa continues to see high levels of particulate matter pollution; there is no evidence of improvement at CDF or Mesa2, and only slight improvement has been observed at Nipomo Regional Park.<sup>11</sup> Studies by the SLOAPCD have determined that the dune complex along the coast of the Five Cities area is the source of the high particulate matter levels measured at these stations.<sup>12,13</sup>

The most recent SLOAPCD study used saturation monitoring on the Nipomo Mesa to better characterize the shape and extent of the dust plume that is generated when high winds blow across the dunes.<sup>1</sup> The result of this effort is shown below in Figure B-1. Of the three permanent monitoring stations in the area, CDF consistently records the highest PM<sub>10</sub> levels. The area of the Nipomo Mesa where PM<sub>10</sub> levels were found to most closely resemble those observed at this station is relatively small and is confined to the area immediately around and to the west the station, as depicted in purple in Figure B-1. This area



**Figure B-1.** Nipomo Mesa forecast map, from Reference 1.

<sup>11</sup> Tupper, K.A., March 2013. Air Quality Trends, 1991-2011. San Luis Obispo County Air Pollution Control District, San Luis Obispo, Calif.

<http://www.slocleanair.org/images/cms/upload/files/Final%20AQ%20Trends%282%29.pdf>

<sup>12</sup> San Luis Obispo County Air Pollution Control District, 2007. Nipomo Mesa Particulate Study. San Luis Obispo, Calif. [http://www.slocleanair.org/images/cms/upload/files/air/pdf/pm\\_report2006\\_rev1.pdf](http://www.slocleanair.org/images/cms/upload/files/air/pdf/pm_report2006_rev1.pdf)

<sup>13</sup> Craig, J., Cahill, T., and Ono D., February 2010. South County Phase 2 Particulate Study. San Luis Obispo County Air Pollution Control District, San Luis Obispo, Calif.

[http://www.slocleanair.org/images/cms/upload/files/pdf/PM2-final\\_report.pdf](http://www.slocleanair.org/images/cms/upload/files/pdf/PM2-final_report.pdf)

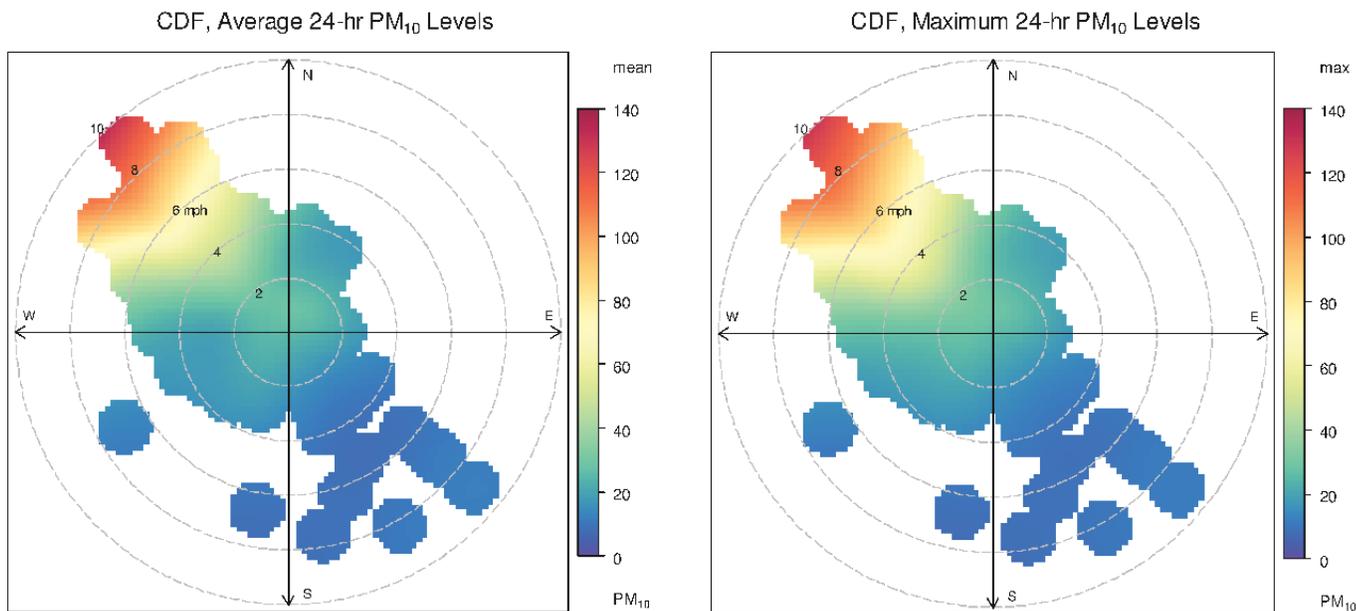
is referred to as the “CDF Forecast Zone” in SLOAPCD Air Quality forecasts and related materials. When winds are high and from the west or northwest, PM<sub>10</sub> levels in this area are anticipated to be similar to those observed at CDF.

Mesa2 records the second highest PM<sub>10</sub> levels on the Nipomo Mesa, and saturation monitoring determined that during high wind events, a large swath of the Mesa and a small part of Oceano experience PM<sub>10</sub> levels similar to those seen at this site. This area is depicted in the middle shade of pink in Figure B-1, and is referred to as the “Mesa2 Forecast Zone” in SLOAPCD forecasts.

Of the three permanent monitoring stations on the Mesa, Nipomo Regional Park records the lowest PM<sub>10</sub> levels. Saturation monitoring determined that the area depicted in light pink in Figure B-1 is most similar to this site in terms of PM<sub>10</sub> levels during wind events. This area is referred to as the “NRP Forecast Zone” in SLOAPCD forecasts.

**2012 PM<sub>10</sub> on the Nipomo Mesa**

Bivariate plots depicting 24-hr PM<sub>10</sub> levels as a function of wind speed and direction—analogue to the ozone plots presented in Appendix A—show that coastal dunes continue to be the dominant influence on Nipomo Mesa PM<sub>10</sub> levels in 2012. For CDF, average and maximum 24-hr PM<sub>10</sub> levels by wind speed and direction bins are shown in Figure B-2, below. The highest levels are observed when winds are from the northwest, and increasing wind speeds correspond to higher peak and average PM<sub>10</sub> levels. Though not apparent from these graphs, these conditions occur far more frequently in late spring and early summer than other times of the year. These observations corroborate SLOAPCD’s previous conclusions and point to the Oceano Dunes State Vehicular Recreation Area (ODSVRA) as the primary source of the high particulate levels measured at this station.



**Figure B-2.** Bivariate plots showing average (left panel) and maximum (right panel) 24-hour PM<sub>10</sub> levels at CDF by wind speed, wind direction for 2012.

## Attachment B

County Public Health Bulletin, Winter 2011  
(excerpts, 1 pg.)



# Public Health Bulletin

A Publication of the Public Health Department, Jeff Hamm, Health Agency Director  
 Penny Borenstein, M.D., M.P.H., Health Officer/Public Health Administrator • www.slopublichealth.org  
 2191 Johnson Avenue • P.O. Box 1489 • San Luis Obispo, CA 93406 • (805) 781-5500 • (805) 781-5543 fax

## 7-12th Graders Will Need a Pertussis Booster for School

In 2010, California had the most cases of pertussis reported in over 60 years, resulting in at least 10 infant deaths and hundreds more that have required hospitalization.

A new school vaccine requirement, recently signed into law, is an important step in stopping the spread of pertussis in California.

Vaccination is the best defense from pertussis; however, the immunity from both pertussis disease and vaccines wears off over time, necessitating booster immunization for adolescents and adults.

Beginning July 1, 2011, all students entering seventh through 12th grades will need proof of a pertussis (Tdap) booster shot before starting the 2011-2012 school year.

On July 1, 2012 and annually thereafter, students entering the seventh grade will need proof of a Tdap booster before starting school. The new Tdap requirement applies to all public and private schools. The requirement does not affect students enrolled in summer school.

Adolescents who have received only the Td booster vaccine will not have met the new pertussis

continued on page 3

Penny Borenstein, M.D., M.P.H.



## Time to Convey the Human Implications of Climate Change

It is time for members of the public health community to use their collective voices to alert, inform and guide the American people relative to climate change, which may well become the leading public health threat of the 21st century.

Dr. Georges Benjamin, executive director of the American Public Health Association, made this point quite clearly in his recent statement: "Climate change is one of the most serious health threats facing our nation. Yet few Americans are aware of the very real consequences of climate change on the health of our communities, our families and our children."

Dr. Margaret Chan, director-general of the World Health Organization, made this point even more bluntly in stating: "We need to ... convince the world that humanity really is the most important species endangered by climate

change."

There are three compelling reasons for American public health officials to engage in communicating the human side of climate change:

- The health of Americans is already being harmed by climate change. The magnitude of this harm is likely to get much worse if effective actions are not taken soon and communities successfully adapt. We have a responsibility to inform communities about risks and how these harms can be averted.
- Climate change efforts to date have focused primarily on the environmental consequences of the threat. These efforts have mobilized an important but still relatively narrow range of Americans. As public health professionals, we have many opportunities to convey the human consequences and impli-

continued on page 2

### Highlights in This Issue:

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Public Health Department newsletters can also be accessed online at the Public Health Department Web site [www.slopublichealth.org](http://www.slopublichealth.org) (click on *Public Health Bulletins* at the bottom of the home page).

## Increased Morbidity and Mortality Associated with Air Particulates

Minute airborne particles, or particulate matter, are also called PM10. Even smaller particles are called PM2.5. Epidemiologic studies have linked these particles to heart attacks, strokes, asthma and lung disease, although most of the studies connected to PM10 and PM2.5 study urban air quality that is associated with traffic and factories. However, studies of persons commonly exposed to dust and dirt have also shown a strong association between air quality and adverse health outcomes, including increased exacerbation of chronic illness and increased hospitalizations.

South County residents living in close proximity to the Oceano Dunes are exposed to high concentrations of particulate matter, especially in the spring when high winds can kick up sand and dust.

The effects can cause respiratory and cardiovascular problems due to chronic irritation of the lungs in mucus membranes. The mechanisms that cause increased morbidity and mortality are not completely understood, but several hypotheses have been offered. Data from some epidemiologic investigations suggest that pre-existing pulmonary inflammation and or chronic conditions could "facilitate PM induced release of pro-inflammatory mediators, resulting in additional pulmonary inflammation, bronchoconstriction, hypoxia and cardiac effects, including ventricular fibrillation and death." Another proposed theory linked exposure to ultra-fine particles to alveolar inflammation, and increased blood coagulability.

Regardless of the mechanism, we urge providers in the South

County region to be aware of the risks associated with exposure to particulate matter in the form of sand and dirt during the windy period in the spring. Patients with chronic respiratory and cardiac conditions should be encouraged to avoid exposure to particulates present on windy days, and monitor air quality in order to make informed decisions regarding outdoor exertion. Providers should be aware of the potential for chronic condition exacerbation, especially after many days of poor air quality in the Oceano Dunes/Nipomo Mesa region.

Daily air quality forecasts are available on the Air Pollution Control District web site, [www.slocleanair.org](http://www.slocleanair.org). You can also receive daily e-mail air quality forecasts by registering at [www.slocleanair.org/air/forecasting.php](http://www.slocleanair.org/air/forecasting.php).

1 Godleski, JJ, Cedec C, Cutler M, and Koutrakis P. Death from inhalation of concentrated air particles in animal models of pulmonary disease. Proceedings of the Second Colloquium on Particulate Air Pollution and Human Health. Park City, Utah, May 1-3 1996. Vol 4, pp136-143.

2 Ostro B, Broadwin R, and Lipsitt M. Course and fine particle and daily mortality in the Coachella Valley, California; a follow up study. Journal of Exposure Analysis and Environmental Epidemiology (2000) V16:412-419.

3 Seaton A, MacNee W, Donaldson K, and Godden D. Particulate air pollution and acute health effects. Lancet- 1995; 345:176-178

## Public Health Receives Child Injury Prevention Grant

Thanks to the combined efforts of child safety and health advocates, the California legislature passed a bill in 1992 allowing for the sale of Kids' Plates motor vehicle license plates. Revenue from the sale of Kids' Plates is returned to local communities in the form of grants, with a goal of reducing or eliminating unintentional injuries in children and adolescents under the age of 18.

The Public Health Department was fortunate to have recently received a 20-month grant from the California Kids Plates Program. This is a very competitive grant process and it will enable Public Health to re-create the comprehensive child injury prevention program which operated from 1994 to 2004.

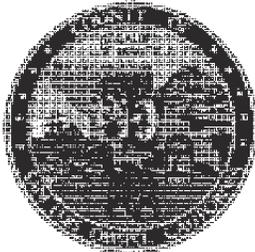
One of the primary focuses of the program will be to decrease

misuse and improper installation of car seats from infants through booster seat age. It is well documented that motor vehicle crashes are the leading cause of death for children, and while 96% of parents think they are properly installing car seats, about 80% of them are not done correctly. Car seats may not be age or weight appropriate, they may have missing straps

continued on page 5

## Attachment C

County Dept. of Agriculture letter (August 10, 2009)  
(excerpt, 2 pp.)



COUNTY OF SAN LUIS OBISPO  
Department of Agriculture/Measurement Standards

2156 SIERRA WAY, SUITE A • SAN LUIS OBISPO, CALIFORNIA 93401-4556  
ROBERT F. LILLEY (805) 781-5910  
AGRICULTURAL COMMISSIONER/SEALER FAX (805) 781-1035  
www.slocountyt.ca.gov/agcomm

**DATE:** August 10, 2009  
**TO:** Brian Pedrotti, Planning Department  
**FROM:** Michael Isensee, Agriculture Department  
**SUBJECT:** Cypress Ridge Tract Map, SUB2008-00028 (AG#1390)

**SUMMARY OF FINDINGS**

The Agriculture Department's review finds that the proposed Cypress Ridge Tract Map (APN 075-351-022 and -028) has the potential for significant impacts to agricultural resources and operations.

These impacts include potential incompatibilities between the proposed development and adjoining agricultural operations as well as the permanent conversion of important soil and water resources to nonagricultural use. To reduce the potential impacts associated with approval of this project, the Department recommends a number of mitigation measures. The recommended mitigations are included at the conclusion of the attached report. There are no recommended mitigations for the conversion of the site's important agricultural soils. Further environmental review would be necessary to determine what options, if any, exist to mitigate this impact.

The incremental and ongoing conversion of land in or capable of agricultural production on the Nipomo Mesa is considerable. The loss of sites capable of commercial agricultural production is a long term trend which incrementally has adverse affects on the broader agricultural industry and associated support industries such as irrigation and well suppliers, seed and plant producers and equipment sales. Even though very little of the Nipomo Mesa is designated Agriculture for land use purposes, it is the location of the County's highest values crops on a per acre basis. Land in strawberry production has a 2008 farmgate value of \$43,000 per acre, while greenhouse and nursery production (including both greenhouse and field production) has a 2008 valued of \$33,000 per acre.

The comments and recommendations in this report are based on policies in the San Luis Obispo County Agriculture and Open Space Element, the Land Use Ordinance, the California Environmental Quality Act (CEQA), and on current departmental policy to conserve agricultural resources and to provide for public health, safety and welfare while mitigating negative impacts of development to agriculture. If I can be of further assistance, please contact me at 781-5753.

### PROJECT BACKGROUND

This report responds to your request for comments on the proposed Cypress Ridge Tract Map and Conditional Use Permit located west of Zenon Way and north of Black Lake Canyon on the Nipomo Mesa. The project proposes to divide an approximately 60-acre parcel into 21 residential parcels of 1 acre each and two private open space parcels scattered between the residences. The project proposes to utilize nine TDC credits to obtain the desired density of 21 residences, as the maximum subdivision potential of the site under the current *Rural Residential* land use designation is 12 parcels. The road and walking paths are proposed to be for private use only. The project proposes primary access via Cypress Ridge Parkway through an adjoining open space easement. The road connection to Zenon Way is described by the applicant as "exit only and without signage" (October 2, 2008).

Immediately adjoining the project site are several large greenhouse/nursery operations (south and east), a 47 acre parcel permanently protected for open space (north), and a golf course fairway (west). The land use pattern beyond these adjoining parcels primarily consists of residential development on parcels ranging from less than quarter acre to 10 acres in size.

The project applicant proposes 200 foot buffers between proposed residential parcels and the adjoining greenhouse operation to the south. Similarly, the project is proposed with 140 feet of separation, including Zenon Way, to the adjoining greenhouse parcel to the east. Trails, landscaping and stormwater retention basins are proposed in these areas.

### AGRICULTURAL SETTING

The project site and nearly all parcels outside of urban and village reserves are designated *Rural Residential*. Only 775 acres of the Nipomo Mesa [Mesa] continue to be designated *Agriculture*. Approximately 1,750 acres of land on the Mesa is in agricultural production. Crops include berries, orchards, row crops, nurseries and greenhouses. Nearly 200 acres, or 11% of total acreage in production, occurs on *Agriculture* designated land and 700 acres, or 40%, occurs on the *Rural Land* area south of the community of Nipomo. The remaining 850 acres, or half (49%), of all agricultural production occurs on *Rural Residential* land. The majority of agricultural production occurs on sites 20 acres and larger.

The site's soils and soils throughout the Mesa consist of *Oceano sand*, including type 184, 0-9 percent slopes and 185, 9-30 percent slopes. These soil types extend through most of the Mesa east to Highway 101. The less steeply sloping *Oceano sand (type 184)* is classified as *farmland of statewide importance* by the Natural Resources Conservation Service and California Department of Conservation. This soil has an agricultural capability classification of 4 when irrigated and 6 if non-irrigated. The main limitations of this soil are its rapid permeability, low water holding capacity, and susceptibility to soil blowing. The use of drip irrigation and close monitoring of irrigation and nutrient levels have enabled growers to maximize the productivity of the soil.

These soils are utilized for the production of berries, row crops, orchards and an extensive variety of nursery and greenhouse plant material including bedding plants, cut flowers and greens, indoor decoratives, outdoor ornamentals, and transplants. The well-draining soils, high quality groundwater, moderate climate, presence of natural gas lines, access to markets, and continued incremental loss of farmland in other areas have led to increasing production on the Nipomo Mesa in recent years.

The project is proposed in one of the few remaining areas on the Nipomo Mesa where larger parcel sizes allow for continued large-scale agricultural production. The project site consists of two legal parcels; one of 20 acres and one of 40 acres. Adjoining parcels with commercial nursery/greenhouse operations are 30, 42 and 67 acres in size. The parcel to the north is 47 acres in size and is encumbered with an open space easement that allows crop production or grazing. Thus, the immediate area includes nearly 250 acres of land on six parcels. This land is either currently in or

available for agricultural production.

For a brief period of time, the project site together with the adjoining 47-acre open space parcel was utilized for the production of strawberries. Between 40 and 60 acres of the area was planted each year between 2003 and 2006. The grower's lease was discontinued near the end of 2007.

## PROJECT EVALUATION

### LAND USE COMPATIBILITY

#### Buffers

When residential development is introduced into an area with intensive agriculture, adequate distance separation (agricultural buffers) and other measures are necessary to minimize potential incompatibilities between the uses. Potential incompatibilities relate to essential characteristics of commercial agriculture operations and residential properties. Normal and customary aspects of agricultural operations are likely to impinge on residents' desires for peace and quiet. Delivery trucks, tractor and equipment operations, fans and other noise, pesticide applications, dust, odors, beekeeping, and 24-hour 365 day operations are all typical of agricultural operations. The adjoining greenhouse operations receive and make shipments via Zenon Way both day and night throughout the year.

Residences and other non-agricultural uses in proximity to an agricultural operation amplify both the duty of care and potential liability for growers, primarily by increasing the likelihood of:

- complaints about agricultural operations;
- trespass and harm to crops, machinery, animals or facilities by either humans or domesticated animals;
- increased competition for groundwater resources;

The presence of non-agricultural neighbors can reduce the ability of growers to perform necessary agricultural operations in a timely manner and increase the costs of production.

Agricultural buffers, according to Agriculture Policy 17 of the County's Agriculture and Open Space Element, exist to minimize potential land use conflicts between agricultural and non-agricultural development by providing a physical separation between the uses. Conflict at the interface ultimately increases costs to growers and can be a further stimulation for the conversion of lands out of agricultural production. Adequate buffers reduce but may not eliminate the potential for conflict at this interface. The County's Agricultural Buffer Policy specifies maximum buffers of 300 to 500 feet for commercial greenhouse and nurseries, respectively. The maximum buffer distances are appropriate for this project site based upon the County's policy, which directs non-Agricultural designated land with existing production agricultural uses to receive comparable protection to Agriculture designated land.

#### Other Compatibility Measures

While physical separation of uses can decrease incompatibilities, it does not necessarily avoid all potential impacts. The proposed project promotes public use of the open space with landscaping, roads and a trail plan. In a number of cases, the proposed trail is located less than 100 feet from neighboring agricultural operation areas. Trails can increase incompatibilities and lead to trespass, theft or crop damage. Relocating the trails to increase separation between the uses is recommended.

The project proposes to continue to utilize two wells located within 60 feet of the property line in order to irrigate proposed project landscaping. The location of the wells could affect agricultural production wells on the neighboring property. Maximizing the distance between these wells and agricultural operations would minimize potential interference and help protect groundwater

resources for agricultural use, as required by County Agriculture Policy 11. Minimizing the amount of irrigated landscaping on the open space areas and on the residential parcels would help protect groundwater supplies.

#### ON-SITE IMPACTS

The proposed subdivision would result in the direct conversion of approximately 60 acres of land to residential use. The proposed residential uses include 21 acres of residential parcels in seven separate residential pods. The remaining 39 acres would consist of two parcels with the following uses: 10 stormwater basins, 4,800 linear feet of access road (2.2 acres), approximately 2 miles of walking paths, gatehouses, and landscaping. These two parcels would be encumbered with open space easements. The physical layout of the proposed project effectively precludes future commercial agricultural use of this open space area. Thus, the proposed design would permanently convert the site to non-agricultural use.

Of the 60 acre site, approximately 40 acres is considered *farmland of statewide importance*. These potentially productive soils would no longer be available for future agricultural production. The County has developed a draft policy (SL 3.1) and implementation strategy (SL 3.1.5) in the public hearing version of the Conservation and Open Space Element (COSE) relating to the conversion of important agricultural soils. Soil types 184 and 185 are both identified as important farmland within the draft COSE.

Existing County goals and policies note that the conservation of agricultural resources, notably soil and water are vital components necessary for a successful agricultural industry in the county. The Department would consider the conversion of the on-site soil resources to be a potentially significant impact.

#### OFF-SITE IMPACTS

Immediately north of the project site is a 47 acre parcel encumbered with an open space easement. As noted, this property was farmed in combination with the project site. The project also proposes to locate its primary access road through the existing open space easement. This would further limit the functionality of this parcel functioning for commercial agricultural purposes due to the increased potential for incompatibilities between residential and potential agricultural use. The County buffer policy does not recommend agricultural buffers for properties not designated *Agriculture* unless there is currently an agricultural use of the property. However, without adequate buffers, the adjoining site's potential future agricultural use would practically be restricted due to potential incompatibilities with the adjoining residential use.

#### CUMULATIVE IMPACTS

Continued land use change on the Mesa places pressure on land in agricultural production to convert to non-agricultural uses. Despite the high value of agricultural crops produced on the Mesa, the development value of large-lot residential parcels appears to significantly exceed the short term agricultural use value on most properties. As development results in continued division of the remaining larger parcels on the Mesa, fewer areas exist on which to expand or relocate agricultural uses. Across the Mesa, projects continue to convert agricultural land or lands capable of agricultural production.

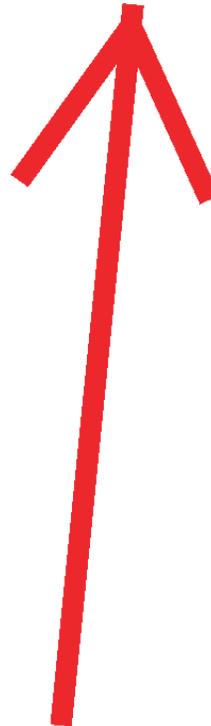
At some point continued development on the Mesa will result in the loss of any area for agriculture to expand and will likely lead to the conversion of existing agricultural operations due to incompatibilities with adjoining uses. Such incremental loss of resources weakens the broader economy of businesses associated with agriculture and leaves fewer sites for growers to locate or expand, limiting long-term options for growers.

## **RECOMMENDED MITIGATIONS**

The Agriculture Department recommends the following measures based on the findings in the previous section.

- 1) **BUFFERS.** Due to their large scale and presence of multiple large agricultural operations on adjoining properties, the policy's maximum agricultural buffer distances are recommended to reduce potential incompatibilities. These distances are 500 feet for any portion of the commercial greenhouse-nursery's outdoor operational areas and 300 feet for actual greenhouses. While it could be beneficial to locate the residential parcels beyond this distance, the County's policy is to, at a minimum, preclude all potentially occupied structures from within the buffer distance. The distance measurement should be from the edge of the agricultural operation. Based upon the frequency of vehicle traffic, the agricultural operation includes internal access roads and truck loading/unloading areas. The proposed lot configuration does not provide adequate developable space on each proposed parcel when accounting for adequate agricultural buffers. An initial analysis appears to show lots 2, 4, 5, 6, 19, 20 and 21 have no developable area if adequate buffers are incorporated into the project. Agricultural buffers would extend onto portions of proposed lots 1, 3, 7, 9, 18, 13 and 14. However, these parcels appear to retain adequate developable space for a residence.
- 2) **NOISE**
  - a. **AGRICULTURAL TRUCK NOISE:** Noise associated with existing/potential agricultural truck traffic on Zenon Way should be evaluated in order to determine if specific setbacks from the roadway are necessary to avoid potential incompatibilities.
  - b. **FROST PROTECTION.** The applicant's noise study noted that setbacks of a mile and a noise barrier of 50 feet in height would be required to fully mitigate for the noise from frost protection fans utilized at the greenhouse operation south of the proposed project. It also notes this noise source would only operate on cold morning hours. Therefore, the potential impact from frost protection fans is primarily one of sleep disturbance. This impact could be minimized by specific construction measures to reduce interior noise. The Department supports the measures noted in the applicant's noise study.
- 3) **TRAIL.** Locate all proposed trails a minimum of 300 feet from adjoining agricultural operations. Locate a physical barrier, such as a six foot no-climb wire fence, between the trail and adjoining agricultural operations, preferably within view of the trail to deter trespass and maximize the protection of agricultural operations.
- 4) **VEGETATION SCREENING AND BUFFER MAINTENANCE.** Require maintenance of existing vegetation located along the south property line for the life of the project. A buffer vegetation maintenance plan should include:
  - a. location and spacing of existing vegetation;
  - b. proposed replacement vegetation to ensure continued screening;
  - c. a maintenance plan for all agricultural buffer areas; and
  - d. minimization of irrigation.
- 5) **RIGHT TO FARM.** Include disclosure of the County's right to farm ordinance (Chapter 5.16) and state law (Section 11010 California Business and Professions Code ) at the time of sale of real property. Requiring notification can help to limit the likelihood of complaints and assist potential owners to understand residential life adjacent to active commercial agriculture. Notification should include detailed information about adjacent agricultural operations including:

- a. typical and potential hours of operation (including nighttime and early mornings as well as 24-hour traffic to and from nursery/greenhouse operations);
  - b. the types of crops grown in the vicinity (not limited to crops currently grown on adjacent parcels); and
  - c. the types of activities—such as pesticide applications, truck traffic, frost control, night lighting, noise and occasional odors—that occur.
- 6) **GROUNDWATER.** Limit the use of groundwater resources for non-agricultural use and locate any open space landscaping wells the maximum distance feasible from adjoining agricultural operations. An evaluation of allowing irrigated landscaping in excess of 1,500 square feet on the proposed open space parcels should occur in light of the mandatory water use limitations described in 22.112.020.
- 7) **IMPORTANT AGRICULTURAL SOILS.** Due to the potentially significant impacts associated with the conversion of 60 acres of capable agricultural soils to permanent non-agricultural use, assess potential mitigation for the conversion of important agricultural soil resources. Potential mitigations include subdivision designs that minimize the conversion of soils and avoid off-site incompatibilities, compensatory mitigation which protects other similarly threatened important agricultural resources on or near the Mesa, and a **limitation on the number of proposed residences** (12 rather than 21 with the additional 9 development credits).
- 8) **CUMULATIVE LOSS OF AGRICULTURE RESOURCES & OPERATIONS.** Due to the potential cumulative impacts, assess options to provide greater protection to portions of the Mesa which have the land acreage, water resources and land use compatibility for long-term agricultural production.



## Attachment D

Nipomo Mesa Management Area 2008 Annual Report  
(excerpts, 4 pp.)

# **Nipomo Mesa Management Area**

## **1<sup>st</sup> Annual Report Calendar Year 2008**

**Prepared by  
NMMA Technical Group**

**Submitted April 2009**

## 2.2. Climate

A Mediterranean-like climate persists throughout the area with cool moist winters and warm dry summers. During the summer months, the warm air inland rises and draws in the relatively cooler marine layer near the coastline keeping summer cooler and providing moisture for plant growth, while in the winter months the relatively warmer ocean temperature keeps the winter warmer. The average annual maximum temperature is 69 degrees Fahrenheit, and the average annual minimum temperature is 46 degrees Fahrenheit. Precipitation normally occurs as rainfall between November and April when cyclonic storms originating in the Pacific Ocean move onto the continent. The long-term (1959 to 2008) average annual rainfall reported at CDF Nipomo rain Gage #151.1 is 15.5 inches and is representative of the larger area of the NMMA. Rainfall variability exists across the NMMA and rainfall increases in the foothills and mountains due to the orographic (elevation) effect. The coastal environment is dominated by on-shore westerly winds flowing from the Ocean onto the land. The average annual potential to evaporate water is 52 inches due to ample sunlight and the large amount of air mass advection. It is important to note that the average annual reference evaporation (Potential Evapotranspiration) is more than three times the average annual rainfall (Table 2-1).

**Table 2-1. Climate in the Nipomo Mesa Area**

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
Average Max Temp (Fahrenheit) <sup>1</sup>	63.1	64.3	64.7	66.9	68.2	70.5	72.8	73.2	74.3	73.4	69.1	64.4	68.7
Average Min Temp (Fahrenheit) <sup>1</sup>	38.9	40.9	42.1	43.4	46.8	50.0	53.0	53.6	52.1	47.9	42.5	38.6	45.8
Average Rainfall (inches) <sup>2</sup>	3.31	3.35	2.75	1.09	0.24	0.03	0.02	0.04	0.21	0.66	1.56	2.26	15.52
Monthly Average Potential Evapotranspiration (inches) <sup>3</sup>	2.21	2.50	3.80	5.08	5.70	6.19	6.43	6.09	4.87	4.09	2.89	2.28	52.13
<i>Notes:</i>													
1. Data from Santa Maria Airport - Nearest long-term temperature record to the NMMA in the Western Regional Climate Center is from the Santa Maria Airport, station #47946. The average is from 1948 through 2005. Source: <a href="http://www.wrcc.dri.edu/climsum.html">http://www.wrcc.dri.edu/climsum.html</a> 2.													
2. Data from CDF Nipomo Rain Gage 151.1 (1959 to 2008).													
3. Data from California Irrigation Management Information System (CIMIS) - Records at Mehlshau (202), Nipomo are less than 5 years, therefore CIMIS reports the regional average for Central Coast Valleys for Station #202. Source: <a href="http://www.cimis.water.ca.gov/cimis/data.jsp">http://www.cimis.water.ca.gov/cimis/data.jsp</a>													

## 2.3. Geology

NMMA overlies part of the northwest portion of and is contiguous with the Santa Maria Valley Groundwater Basin (Figure 1-1). The Santa Maria Valley Groundwater Basin is the upper, relatively recent and water-bearing portion of the Santa Maria Geologic Depositional Basin, which includes older Tertiary age consolidated rocks. The aquifer system in the basin consists of unconsolidated alluvial deposits including gravel, sand, silt and clay with total thickness ranging from 200 to nearly 2,800 feet. The underlying consolidated rocks typically yield relatively insignificant quantities of water to wells.

A mantle of late Pleistocene eolian (wind-blown) dune sands overlies the elevated area, known as Nipomo Mesa. The dune deposits were once much more extensive, but most were eroded away during

the last ice age by the ancestral Arroyo Grande Creek, Los Berros Creek, and Santa Maria River. Today the Nipomo Mesa older dune sands area is a triangular lobe extending four (4) miles along the coast and extending 12 miles inland to the Hwy 101 Bridge over the Santa Maria River.

Lithologic logs recorded during the drilling of wells indicate that the Nipomo Mesa dune sands are 150 to 300 feet thick. The Nipomo Mesa dune sands are highly porous and permeable. DWR (2002) reported that minor surface runoff occurs from the bluffs at the margins of NMMA, but that increased development has resulted in some increase in surface runoff from the NMMA to the adjacent Arroyo Grande Plain and Santa Maria River Valley.

### 2.3.1. Stratigraphy

The unconsolidated alluvial deposits comprising the aquifers underlying the NMMA include the Careaga Sand, the Paso Robles Formation, Quaternary Alluvium, and wind-blown dune sands at or near the surface. The following paragraphs, based on DWR (2002), describe the unconsolidated deposits.

#### *Careaga Formation*

The late Pliocene shallow-water marine Careaga Formation of the Santa Maria Valley Groundwater Basin is typically described on the lithologic logs as unconsolidated to well consolidated, coarse- to fine-grained, blue to bluish-gray, white, gray, green, yellow, or brown to yellowish-brown sand, gravel, silty sand, silt, and clay. Sea shells or shell fragments in clays, and sometimes in sands or gravels, are locally common, but the distinctive sand dollar fossils (*Dendraste*, sp.), reported in outcrops of the formation south of the study area were not identified on the lithologic logs. Occasional mention was made of Monterey shale chips. Within the study area, the Careaga Formation occurs only at depth. The formation is about 150 feet thick proximal to the Santa Maria River fault under the NMMA and progressively thickens to about 300 feet toward the southwest part of the NMMA.

#### *Paso Robles Formation*

The Pliocene-Pleistocene Paso Robles Formation was deposited under a variety of conditions, ranging from fluvial and estuarine-lagoonal in inland areas to near-shore marine at the coast. Consequently, the formation exhibits a wide range of lithologic character and texture. As described on the lithologic logs of well completion reports, the formation typically consists of unconsolidated to poorly consolidated to sometimes cemented beds or lenses of gray, brown, tan, white, blue, green, or yellow, coarse- to fine-grained gravel and clay, sand and clay, shale gravel, silt, clay, silty clay, and sandy clay, with some lenses of gravel and sand. The near-shore marine deposits can contain fossils near the base of the formation.

The Paso Robles Formation lies conformably upon the Careaga Formation. Where the Careaga Formation is absent, the formation lies unconformably upon undifferentiated Tertiary rocks or basement complex. Where the Paso Robles Formation overlies the Careaga Formation the contact is often difficult to distinguish on the basis of borehole lithologic log descriptions. Woodring and Bramlette (1950) identified the base of the Paso Robles Formation by the occurrence of characteristic, but discontinuous, 50- to 100-foot beds of clay and freshwater limestone; where these were absent, they used conglomerate as the base, but considered the base not well controlled; and, where there was neither clay nor conglomerate, they considered the base doubtful and arbitrary.

The formation is about 150 feet near Nipomo Creek in the eastern boundary of the NMMA and progressively thickens to about 500 feet near the southwestern boundary of the NMMA. Individual beds

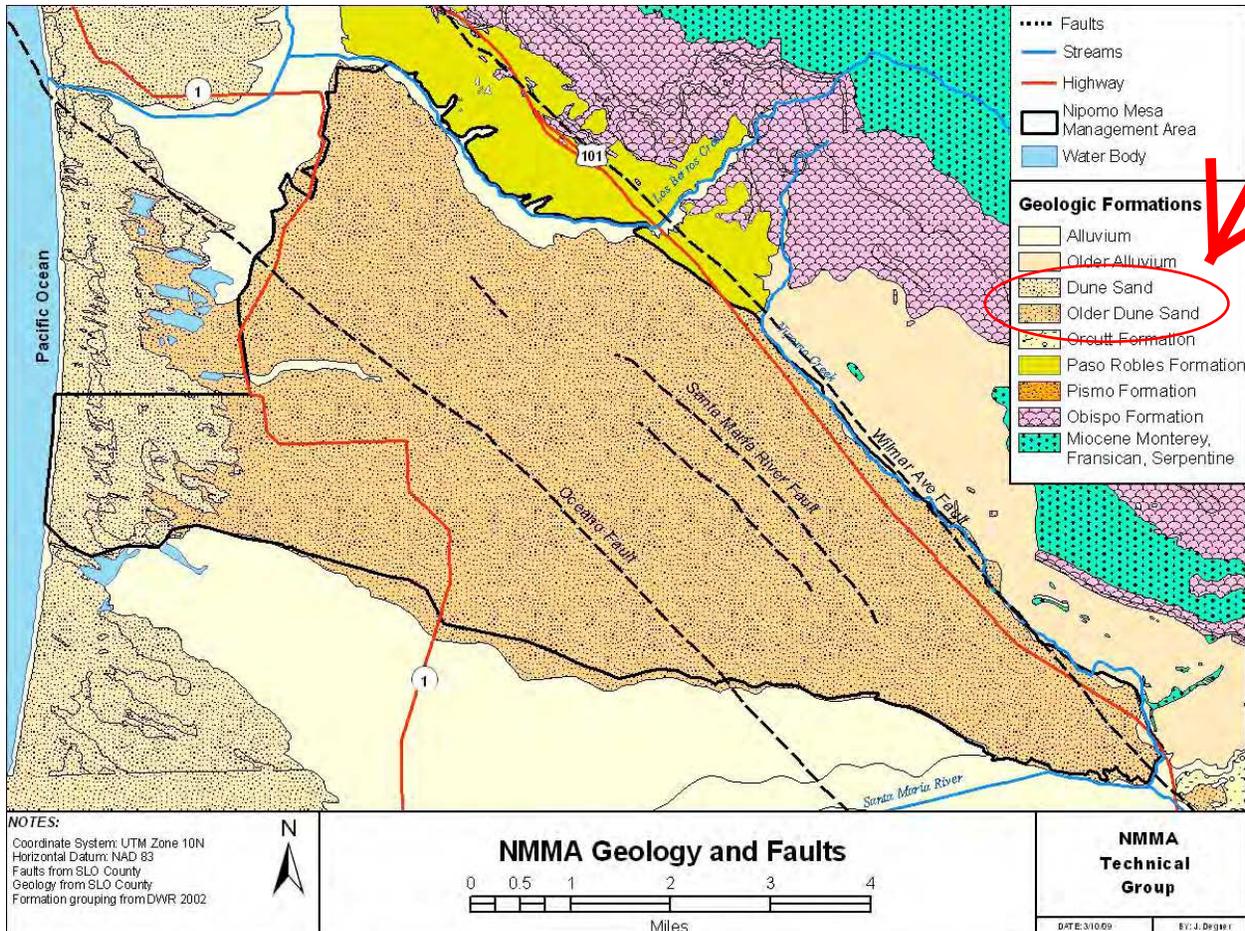


Figure 2-2. NMMA Geology and Faults.

### *Santa Maria River Fault*

The Santa Maria River fault trends northwest to southeast inside the NMMA. To the southeast, from near the head of Black Lake Canyon to near Division Street, the fault has been postulated to be a zone of subsurface steps or warps in the top of the bedrock, rather than a single fault. The fault is identified by significant lithologic differences on opposite sides of the fault (DWR, 2002). The interpretation of the location of the fault by the County of San Luis Obispo as presented in this report differs from the DWR location (Figure 2-2).

### *Wilmar Avenue Fault*

The range front Wilmar Avenue fault is a northwest-southeast striking, northeast-dipping late Quaternary reverse fault. The fault is exposed only at a sea cliff in Pismo Beach and extends at least to Arroyo Grande. The range front fault is characterized by two distinct structural segments: a western segment that exhibits block uplift with minor tilting or folding and an eastern segment that forms a monoclinical fold in the upper Pliocene strata. The fault extends offshore, veering slightly to the west for at least three miles. The fault may extend south of Arroyo Grande along the front of the San Luis Range and the northeast margin of NMMA to the northern part of Santa Maria Valley, where it may truncate against the Santa Maria River fault. Along this segment, the fault is inferred by the alignment of subtle geomorphic and geologic features, including a straight segment of Nipomo Creek (DWR, 2002).

## Attachment E

1944 U.S.G.S. Geologic Map

